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STATE COMPENSATORY EDUCATION IN NEW JERSEY
THE ALLOCATION FORMULA

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INTRODUCTION

State Compensatory Education programs offer supplemental, or additional, "... instructional or related services.... over and above the regular school program...." Compensatory Education services are focused on individual students rather than on the system that is charged with the responsibility for providing the educational services. While the specifics of the programs may vary from one school district to another, all of them operate on the assumption that the curriculum content, materials, instructional activities, other services, and staff which constitute the regular school program are adequate.

In a number of school districts, 25% to 60% of the tested students fall below the Statewide minimum standard for pupil proficiency. When the numbers involved are this large, Compensatory Education is an inappropriate term. It tends to obscure the reality that there are districts where the "regular school program" is inadequate and should be reexamined and revised. When more than 15% of the students tested fall below the Statewide minimum standard, it may well be that the major causes as well as the solutions to the problem lie within elements of the regular school program rather than with the individual student.

The philosophy that Compensatory Education programs are supplemental activities is apparent in the amount of State funding in that category. New Jersey will spend slightly less than one billion dollars in State Aid to Education during the 1977-1978 school year, but only 6% of this total has been allocated for Compensatory Education. As a category of State School Aid, the Compensatory Education Fund is overshadowed by a myriad of other aid classifications and costs that command 94% of the total expenditures in the State's education budget.

Even though Compensatory Education Funds are a small proportion of the education budget, they represent an important source of additional support for a number of school districts.

The estimated amount of money the State will grant to a school district to provide Compensatory Education services to students is determined by multiplying the number of students in the district who meet the program eligibility requirements by a predetermined dollar amount of aid per pupil. Prior to June, 1977, the formula for calculating the number of eligible students consisted of a weighted count of students enrolled in Federal, State, and local Compensatory Education programs the previous year. The State Department of Education has recently developed a new formula for calculating student eligibility and funding school districts, and it is the new formula which is the subject of this paper.

STATE COMPENSATORY EDUCATION IN NEW JERSEY
THE ALLOCATION FORMULA

Chapter 212 of the Public Education Act of 1975 (the Thorough and Efficient Law) establishes a compensatory education fund which, each year, grants school districts additional funds to educate students who are enrolled in preventive and remedial programs (approved by the State Board of Education) or who have academic, social, economic, or environmental needs that prevent their succeeding in a regular school program. On June 1, 1977, the State Board of Education formally adopted the revisions in the Administrative Code necessary to implement the provisions in the 1975 Law. During the twelve months prior to the State Board's action, the criteria for student eligibility and a suitable formula for allocating funds were hotly debated topics. A number of advocates for the suburbs hoped that student eligibility and the amount of funds awarded a district would be based primarily, if not solely, on the results of district level assessment. Some urban interests, on the other hand, felt the hard pressed cities should have priority and that socio-economic factors (poverty criteria) should be the major element in the new eligibility and funding formula. This summer, districts applied for a share of the \$57 million in Compensatory Education funds available for the 1977-78 school year (fiscal year 1978) as well as an additional \$1.7 million dollars in small Compensatory Education Research and Development grants.

The formula that was finally accepted was a combination approach that incorporated test scores as an indicator of academic need and the number of children in the district receiving public assistance under the Aid to Families with Dependent Children program as an indicator of economic need (poverty). The current formula applies to the 1977-78 and 1978-79 school years. It is an interim device for allocating funds to school districts and not a permanent formula.

THE STATE COMPENSATORY EDUCATION FORMULA
FOR FISCAL YEAR 1978 (1977-1978 AND FISCAL YEAR 1979 (1978-1979))

School districts, using some rather broad criteria, were required to identify eligible students. The State Department of Education (SDOE), using statistical techniques, compiled their own estimates of eligible students for each district and set limits on the number of students they would fund. The formula, which presumably favors urban and high poverty areas over the suburbs, is somewhat complicated and was the object of criticism from the outset.

Identifying Eligible Students
at the District Level

Classification by Test Scores

Any student who answered less than 65% of the questions correctly on the October, 1976 Statewide Assessment Test or on an "established" reliable and valid local or commercially developed test could be counted as an eligible student. School districts were permitted to use local or commercially developed tests for all grades except incoming grades 5, 8 and 11. Students in grades 5, 8 and 11 had been tested the previous year when they were in grades 4, 7, and 10 with the Statewide Assessment Test, so it was relatively easy for districts to identify eligible students in those grades.

The provision that allowed the use of locally or commercially developed tests in the "untested" grades enabled some districts, depending on which test they used to measure students' proficiency levels, to identify a greater number of eligible students. Both local and commercial tests vary in the difficulty of their content. Differences between test instruments, particularly reading tests, in areas such as word choice, sentence complexity and structure; and on math tests in the level of computational problems, often result in a situation where the same student scores 75% correct on one test and 60% correct on another. Knowledgeable staff at the district level could select a more difficult commercial test and identify a larger number of eligible students. It was expected that some districts, especially those which tested students

with a variety of instruments or had used less demanding tests to made students' proficiency levels look better, might changeover to more difficult tests.

Classification by Social, Economic, or Environmental Needs

School districts were also permitted to classify students whose test scores were above the minimum proficiency level (65% correct) as eligible for Compensatory Education services. The State guidelines stipulated only that "the needs assessment concerning....social, economic, or environmental factors clearly demonstrate(s) that enrollment in preventive or remedial programs is necessary". This provision benefited districts which had large concentrations of poor and socially disadvantaged students, and where certain characteristics of the area could have a negative effect on students' learning. By allowing for differences in the quality of life among communities, the guidelines enabled urban districts in particular to account for the effects of a depressed environment.

Each district is required to have "detailed information documenting the needs assessment for enrollment" of these students available for a State audit. No other specifics, e.g., the type, format, and quality of the documentation are included in the State guidelines.

It is up to the local district to justify eligibility with whatever form of documentation it chooses, a teacher's recommendation will be sufficient. In theory, some districts could have found grounds for classifying nearly all of their pupils in one of the broad and general categories and the lack of specific State guidelines would make it difficult to challenge district level eligibility classifications. Some observers were concerned that wealthy suburbs in particular might capitalize on the liberal guidelines and enroll large numbers of students in compensatory education programs. In practice, however, it did not matter because the State Department of Education (SDOE) set limits on the number of eligible students each district was allowed.

Identifying Eligible Students
at the State Level

Although the State Department of Education did not issue specific guidelines that might have encouraged a more uniform system of classifying students, districts became eligible for funding according to a State, and not a locally determined eligibility level. A hypothetical district could identify as many eligible students as it chose, but it would be funded up to the State determined eligibility limit (Column E, Figure 1) and no more. For example, if District A identified 2000 eligible students and the State had determined District A's eligibility level at 1300 students, District A would be funded for only 1300 students. District A could elect to offer remedial and preventive services to the remaining 700 students, but the services would have to be financed with non-State funds.

Districts that identified fewer students than the limit imposed by the State determined eligibility level received State funds based on the district level estimate. If, for example, District B had identified 978 eligible students, while the State Department of Education (SDOE) had determined there were 1200 eligible students in District B, District B would be funded for only 978 students.

These State determined eligibility levels will not be in force until the 1978-1979 school year (fiscal year 1979). The Attorney General's office recently ruled that 1977-1978 Compensatory Education funds had to be awarded using the old formula based on September, 1976 student enrollment in Federal, State, and local Compensatory Education programs. School districts earlier in the year, had used the September, 1976 enrollment figures to estimate their 1977-1978 budgets, the formula for State determined eligibility levels was not adopted until this past June.

Some school districts were eligible for more State aid under the old formula than under the June, 1977 new formula. This could have led to windfall funds for the districts in question, but did not. According to an SDOE staff member, these districts reduced their budgets to conform to the new formula.

Calculating a District's
State Determined Eligibility Level

Each district's eligibility, or allocation, level is expressed as the number of students in that district for whom the State Department of Education will grant Compensatory Education funds. State determined eligibility levels are statistical estimates and not actual counts. They are the product of a formula that attempts to quantify the extent of academic and economic need in a given school district.

The Severity of Academic Need

In order to determine the extent of academic need in a district, the State Department of Education utilized the actual scores of a district's students on the October, 1976 Statewide Assessment Test.

For students in grades 4, 7, and 10, those scores below the minimum standard (65% correct) were weighted in 4 categories. Students who scored the lowest (0 to 19% correct) were counted 4 times heavier than students who scored below, but close to the minimum standard (50% to 64% correct). The State Department of Education's rationale in weighting the scores was to take into account the differences in the severity of need between a student who scored 4 points below the minimum standard and a student who scored 40 points below the minimum standard. The weighted scores were used by SDOE to develop a mathematical equation to account for the range of score differences across the 4 categories below the minimum standard in the tested grades, which was called the severity index. SDOE also used the results of the 1976 Statewide Assessment Test to compute, by extrapolation, the estimated total number of students below grade (below the minimum standard) in each district (See Column B, Figure I).

The estimated number of students below grade and the severity index were combined with other functions in an equation for computing district academic need. District academic need (Column C, Figure I) represents the extent of academic need in a given district and is expressed as the number of students in a district who, on the

basis of academic criteria, are eligible for Compensatory Education. The main elements in the equation for computing District Academic Need are the severity index, which was based on the weighted distributions of scores on the 1976 Statewide Assessment Test; and the estimated number of students below the minimum standard in the untested grades, which was extrapolated by using a complex parabolic equation. Both the extrapolations and the equation on which they were based have been the object of some criticisms from districts where there was dissatisfaction with State determined eligibility levels.

The Severity of Economic Need

The State Department of Education uses a count of the number of children in a district who receive aid through public assistance programs (called the AFDC count) as an indicator of that district's economic need (poverty level). The AFDC count (Column D, Figure I) was selected because SDOE felt it was "the most viable of the socio-economic options". In short, it was more simple, more accurate, and less controversial than any of the other measures that were considered.

It was particularly important for urban districts that a credible and relatively accurate economic need indicator was included in the State determined eligibility formula. Urban educators have been insisting for years that given a low income child and a middle income child who are both at the same proficiency level, it will cost more to provide equivalent services to the low income child than to his middle income counterpart. The formula appears to reflect just such an underlying assumption. The economic need element in the equation has been assigned a greater weight than the academic need indicator, and this becomes very apparent when the mathematical constants in the formula are examined.

Balancing the Equation with Mathematical Constants

One of the problems that SDOE wanted to eliminate from the formula was the phenomenon of overlap, or double counting, of students who fell into both the economic need (Column D, Figure I) and academic need (Column C, Figure I) categories. It was

calculated that approximately 33% of the total students in both of those categories were being counted twice. To resolve the problem SDOE reduced the number of students in the District Academic need category (Column C, Figure I) 33% by using a mathematical constant of .67. All students in the AFDC count (Column D, Figure I) were given full weight by applying a constant of 1.0.

It should be noted that SDOE could just as easily have assigned the lesser constant to economic need with the result that academic need would have been the dominant factor in the formula for allocating funds. Some observers may feel the difference between the two constants is not significant, but what they overlook is the fact that there is an important underlying assumption present. The weighting in the constants assumes that economic need, or what SDOE refers to as socio-economic status, is, at least in relation to Compensatory Education funds, the most important of the two variables in the formula. In this regard, the formula promises to distribute funds in favor of districts with large concentrations of poor pupils.

District Eligibility Level

To most school districts, the most important part of the formula is their District Eligibility Level (Column E, Figure I), the number of students eligible for September, 1977 enrollment in Compensatory Education programs. It is this number which when multiplied by the \$165 per pupil the State allows results in an estimate of a district's total award. For example, if District A's eligibility level (Column E, Figure I) was 199.52 students, the district would receive a total of \$32,920.80.

(\$165 x 199.52)

FIGURE I

(Column A)	(Column B)	(Column C)	(Column D)	(Column E)
Actual District Enrollment	Estimated Total No. of Students Below Grade	District Academic Need	District Economic Need (AFDC Count)	District Eligibility Level
<hr/>		<hr/>		<hr/>
1019	225	155.81	95	199.52

THE EQUATION

$$\begin{array}{ccccccc} \text{District} & & \text{Academic Need} & & \text{District} & & \text{Economic} \\ \text{Academic Need} & \times & \text{Constant} & + & \text{Economic Need} & \times & \text{Need Constant} = \\ & & & & & & \\ & & & & \text{District} & & \\ & & & & \text{Eligibility Level} & & \end{array}$$

or

$$(155.81 \times .67 + (95 \times 1.0) = 199.52)$$

Three Special Cases

For the 1977-1978 school year, the District Eligibility Level for Atlantic City, Camden, and Newark was calculated at 100% i.e., these cities would receive Compensatory Education funds for every student who met the District Level Eligibility criteria. A combination of statistical factors has resulted in what should amount to some considerable gains in Compensatory Education funds for those three hard-pressed Urban districts. Although Compensatory Education funds are a relatively small proportion of all the aid to education funds dispensed by the State, the above allocation plan is a victory of sorts for urban advocates. What is important to remember is that in relation to Compensatory Education, the preventive and remedial component of the Thorough and Efficient Law, the formidable and unique combination of negative social forces that press upon the poor urban pupil has been taken into account.

1977 - 1978 (Fiscal Year 1978): Underfunded Programs

There is one disturbing fact about Compensatory Education during the current school year: the \$57 million State allocation is not enough to fund all of the eligible students at \$165 per child. Enrollments have outstripped resources. SDOE feels that districts will have no choice other than to offer "watered down" programs, so the positive effects of the new infusion of funds to cities will be forestalled until next year (fiscal year 1979) when the programs are fully funded.

1978 - 1979 (Fiscal Year 1979)

The formula that has been described in the preceeding pages is an interim device that will be used in 1978-1979 and then supposedly replaced by a permanent formula for the 1979-1980 school year. Details on the 1979-1980 formula are lacking. It may contain some elements of the interim formula, or be a totally different system.

The practice of funding districts on the basis of the previous year's enrollment in Compensatory Education Programs will be continued. The number of students in a district who will be eligible for enrollment (and funding) in September, 1978 (the 1978-1979) school year, will be a function of the number of students who are enrolled

in Compensatory education programs on September 30, 1977.

Some Additional Considerations

There are a number of knotty philosophical and programmatic issues concerning Compensatory Education that face SDOE. Perhaps the most controversial and difficult to resolve will be the relationship of improved pupil performance to awarding future State aid. It seems logical, if only in the narrow sense, that school districts would receive less Compensatory Education funds as the proficiency levels of their pupils increase. In short, being successful might result in a loss of State funds. If this is to be the case, then it can be said that the system will be rooted in some formidable disincentives for school districts. A related question is whether or not districts that demonstrate improved pupil proficiency levels will become eligible for funds that will enable them to maintain the level of excellence they have achieved. District level planners are generally very dollar conscious and if a loss of State aid is the penalty they must pay for being successful, if the process can be seen as literally refining oneself out of business; some districts might see advantages in moving slowly and exerting less than a maximum effort.

On the other side of the coin is the question of what happens to school districts that fail to show improvement in pupil proficiency. It again seems logical to maintain, if not increase, the amount of State funds these districts receive. The State, if it is not prudent, might then find itself in the role of rewarding mediocrity and subsidizing failure.

Part of the problem relates to minimum standards. The State presently has a standard for measuring pupil proficiency, but no standard exists for measuring school district proficiency: the rate at which the academic skills of Compensatory Education students improve. SDOE will have to resolve this problem as well as a number of others.

Conclusion

While it is understood that Compensatory Education funds will probably do very little to close the gap in school expenditure levels between wealthy and poor districts, it is nonetheless important that the educational consumer and the interested observer understand how the system works. Compensatory Education funds are the source of financing for preventive and remedial programs mandated in the Thorough and Efficient Law. The current formula, an interim device for allocating funds for the 1977-1978 and 1978-1979 school years, is a combination approach that takes both academic and economic need into account. Some observers claim the interim formula appears to focus the limited State funds precisely where they are most needed: in the hard-pressed poor and urban districts. Thoroughly planned, adequately funded, and well managed, the Compensatory Education program could help to reverse the downward trend in New Jersey education. But before this can become a reality, SDOE must face up to and resolve some knotty philosophical and programmatic issues. Time is important: a number of critical decisions will have to be made in the relatively near future.

GLOSSARY

COMPENSATORY EDUCATION: Preventive and remedial programs, supplemental to (in addition to) the regular school program that are established for students who have academic, social, economic, or environmental needs that prevent them from succeeding in the regular school program. Compensatory Education programs are paid for with State Aid to Education through the Compensatory Education Fund.

CATEGORICAL STATE AID: State Aid to Education that is allocated to school districts for specific categories or classifications of students and/or services. For example, Compensatory Education, Bilingual Education, and Local Vocational Education are all categorical aid programs that provide specific types of services for specific types of students.

STATE AID FORMULA: A mathematical equation or calculation used to determine the amount of State aid to education funds in a specific category or classification that will be awarded to a school district.

REGULAR SCHOOL PROGRAM: The curriculum content and materials, instructional activities, services and staff training designed to address the learning needs of all students. Activities and services designed to address the needs of specific groups or classifications of students are not part of the regular school program, they are supplemental.

MINIMUM PROFICIENCY LEVEL, OR MINIMUM STANDARD: Designated as 65% mastery of both the communication skills and computational skills sections of the Statewide Assessment Test. Students in the tested grades who scored less than 65% correct performed below the minimum standard and thereby became eligible for enrollment in remedial programs.

WEIGHTED COUNT, OR WEIGHTING: A mathematical operation that increases or decreases the numerical value of a unit, a statistical adjustment. Weightings or weighted pupil counts are used frequently in education statistics. For example, the State may decide it wishes to provide funds to school districts for a specific service for all students. Let us assume that the cost of providing the service to a Special Education student has been fixed at 3 times the amount needed to provide the same service to a student in the regular school program. A 300 student school district with 275 regular students and 25 Special Education students would weight Special Education students 3 times heavier than regular students to get an accurate estimate of the cost of providing services to all students. The school district would claim 350 eligible students.

Calculation:

regular students		Special Education students		Weighted Student Count
275	+	(3 x 25)	=	350

PUBLIC EDUCATION ACT OF 1975: Also known as the "Thorough and Efficient Law", this law provided for a thorough and efficient system of free public education, implemented a State aid program to support such a system, and revised and supplemented parts of other New Jersey educational statutes. The Act was amended in 1976 to provide for the establishment of Minimum (Statewide) Standards of Pupil Proficiency.

REFERENCES

"Determination Of Eligibility Levels For State Compensatory Education". New Jersey State Department of Education.1977.

"Guidelines For The Planning and Implementation Of New Jersey State Compensatory Education Programs". New Jersey State Department of Education, June, 1977.

New Jersey, "Public Education Act of 1975". Chapter 212, Laws of 1975 (1975).